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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,036	02/14/2001	Terence Martin Hinds	Q51544	8219

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

15

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

mk-15

Office Action Summary

Application No.

09/782,036

Applicant(s)

HINDS ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8 and 10-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8 and 10-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/141,326.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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- 1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-17-03 has been entered.
- 2) The amendment to claim 6 filed 3-17-03 has not been entered by the PTO clerk since claim 6 was canceled on page 1 of the amendment filed 4-9-02.
- 3) The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

The declaration incorrectly identifies the filing date of Ireland application # 970633 as being "August 27, 1998" instead of --August 27, 1997--.

- 4) The disclosure is objected to because of the following informalities: In the description of the invention (i.e. the description after page 2 line 12, "gel" (and variations thereof) should be changed to --fuse-- (and variations thereof). For example, "gel" should be changed to --fuse-- and "gelled" should be changed to --fused--.. These changes are reasonably conveyed by the

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original disclosure (not new matter) since (1) the original disclosure describes heating powder, granules or pellets of thermoplastic material to manufacture a floor covering and (2) the description of “fused” on page 9 line 29 of the original disclosure indicates that the thermoplastic material is fusible; it being noted that (1) powder, granules or pellets of thermoplastic material (in sharp contrast to a PVC plastisol) cannot be gelled (solidified) by heating; (2) powder, granules or pellets of thermoplastic material can be fused by heating and (3) the amendment filed 3-17-03, amended claim 1 describes “fuse” and “fused”.

Appropriate correction is required.

5) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6) Claims 1-5, 7-8 and 10-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the relationship between *the first substrate in claim 1* and *the pair of belts in claim 1* is unclear. The separate recitation of “first substrate” and “belts” indicates that the substrate is not one of the belts. However, dependent claim 10 requires “the first substrate is defined by a lower one of the belts”. In other words, it is unclear if the floor covering made by the method claim 1 is or is not required to include the first substrate. Dependent claim 10 appears to indicate that the latter is intended.

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In claims 3-5, what is the material? Should "material" in claims 3-5 be --fiber matt--?

In claim 7 (*the rollers of claim 1* defining a gap), it is unclear what additional limitation is required.

Claims 15 and 16 ambiguously refer to "the thermoplastic material". Is the first thermoplastic material and / or the second thermoplastic material be described?

In claim 17, it is unclear if "a base coat forming material" is one of the first thermoplastic material or the second thermoplastic material and it is unclear if the saturation layer, which has no antecedent basis, is one of the first coating and second coating. Furthermore, claim 17 is confusing and ambiguous because it is unclear if claim 17 merely describing the steps of claim 1 using different words or if additional scattering, leading and applying heat steps are being claimed.

Claim 19 is confusing and ambiguous since it is unclear if all of the steps therein are in addition to the steps of claim 1 or if there is overlap of the steps of claim 1 and the steps in claim 19. For example: Is the step of "scattering a first thermoplastic material onto a first belt" (claim 19) the same as, in addition to or further limiting of the step of "scattering powder, granules or pellets of a thermoplastic material onto a first substrate to form a first coating" (claim 1)?

In claim 20 line 1, it is unclear if an additional pair of belts is required.

In claim 24, "whenever manufacturing" should be --manufactured by-- to clarify claim 24.

7) Applicant is advised that should claims 2, 13 and 14 be found allowable, claims 23, 15 and 16, respectively, will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof.

When two claims in an application are duplicates or else are so close in content that they both

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cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 2 has the same scope as claim 23.

Claim 13 has the same scope as claim 15.

Claim 14 has the same scope as claim 16.

8) Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The limitation of claim 7 is already required by claim 1.

9) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Schermutzki

11) Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Schermutzki (US Patent 4,743,187).

Schermutzki discloses a method comprising: scattering thermoplastic powder on a lower belt to form a first layer of thermoplastic powder, applying a substrate (glass fiber matt) 4 to the first layer of thermoplastic material; applying thermoplastic powder on the substrate 4; leading the coated substrate between a pair of belts (1,2); applying heat and pressure between the belts using pressure bodies 30 in compression zone 3 (column 3 lines 35-38); and cooling the layer (zone 5) to form a product having smooth surfaces (col. 2 lines 66-68). See figure 1. A second glass fiber mat may be used. See figure 3.

Product by process claim 24 fails to require a different product than that made by either figure 1 or figure 3 process of Schermutzki. The description of "floor covering" relates to the intended use and thereby fails to define over the product made by Schermutzki.

Brinkmann et al

12) Claims 1-5, 7 and 10-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkmann et al (US Patent 4,396,566) in view of Takeuchi et al (US Patent 4,510,201) and Schermutzki (US Patent 4,743,187) and in view of Weaver et al (US 3385722) and / or Bradshaw et al (US 2960727).

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Brinkmann et al discloses a method for making sheeting for use as a floor covering comprising: applying thermoplastic resin in the form of particles such as shreds, crumbs, cuttings, pieces, chips or the like onto a lower belt 11 to form a raw material layer; preheating the raw material layer using infrared radiators 19, 20; heating and pressing the preheated raw material layer between an upper belt and the lower belt 11 to form a thermoplastic sheet of welded (fused) particles wherein the material is heated during pressing to a welding (fusing) temperature and the lower belt 11; and cooling and pressing the sheet. See figure 1 and column 2 line 64. At column 3 lines 60-68, Brinkmann et al suggests making composite sheet by applying the particles to a textile supporting sheet comprising for example mineral fibers and pressing into a composite sheet in the treatment zone. Brinkmann et al does not specifically recite applying the thermoplastic particles twice so that thermoplastic particles are applied to each side of the textile sheet.

As to claims 1 and 24, it would have been obvious to one of ordinary skill in the art to apply thermoplastic particles on the lower belt 11 to form a first layer, apply a textile sheet on the first layer and then apply thermoplastic particles on the textile layer to form a second layer *so that* after heating and pressing between the belts, the **composite sheet floor covering** of Brinkmann et al comprises a textile sheet having thermoplastic material on both sides since: (a) Takeuchi et al, also directed to making a floor covering using thermoplastic particles (PVC powder), teaches that a **floor covering** having thermoplastic on both sides (figure 1) is *an alternative* to having thermoplastic on only one side (figure 2) and (b) Schermutzki, also directed to using thermoplastic particles to form a **composite sheet**, suggests applying a first layer of thermoplastic

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particles on a lower belt *before / upstream of* applying a textile sheet (glass matt) and applying a second layer of thermoplastic particles on the glass mat and applying heat and pressure between a pair of belts in order to incorporate the textile sheet in the thermoplastic resin. The first substrate reads on the lower belt of Brinkmann et al. See for example dependent claim 10. In any event: It would have been obvious to use two textile sheets in the process of Brinkmann et al by applying a second textile sheet on the thermoplastic layer of particles and applying another layer of thermoplastic particles depending on the desired reinforcement since (a) Brinkmann suggests applying the thermoplastic particles after the textile sheet is arranged on the lower belt, (b) Schermutzki suggests sequentially building layers (figure 5) and optionally (c) it is taken as well known / conventional per se in the floor covering art to sequentially build up alternating layers of textile and resin albeit resin in plastisol form (Brinkmann et al teaching to use thermoplastic particles instead of plastisol to make a floor covering)..

The limitation of smoothing using a pair of **rollers** and cooling the layer would have been obvious depending on the desired smoothness in view of Bradshaw and/or Weaver - Bradshaw et al, which like Brinkmann et al applies heat to a layer of thermoplastic particles to fuse them together, suggesting using a pair of rolls 38, 44 in a pressing means comprising two belts such that the **rolls 38, 44** are between heating means 32, 34 and cooling means 48, 50 as shown in figure 1 and Weaver, also directed to using thermoplastic particles to make a floor covering, suggests that if desired the layer formed by applying heat and pressure to a thermoplastic particle

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coated web, may be passed between **two rolls 19 and 20** "if a glossier surface is required" for the floor covering.

As to claim 2, note Brinkmann et al's suggestion at column 3 lines 60-68 to use a textile sheet in the form for example of a mat of mineral fibers.

As to claims 3-5 and 25, it would have been obvious to one of ordinary skill in the art to use a glass fiber mat such that the mat is less than 100g glass fiber / m² (claim 3), less than 65g glass fiber/ m² (claim 4) or 30-50g glass fiber /m² (claim 5) in view of Takeuchi et al's suggestion to form a sheet product for a floor covering wherein the sheet product may include a core layer of glass fiber having a density of 30-200 g/m² (column 7 lines 1-6).

As to claim 7, note either Bradshaw et al or Weaver's suggestion to use a pair of rolls.

As to claim 10, note the lower belt of Brinkmann et al.

As to claims 11 and 12, it would have been obvious to one of ordinary skill in the art to use the same material or different materials for the two layers since Takeuchi et al suggests applying the same material or different material to the two sides of the textile core 1.

As to claims 13-17 and 19 (thermoplastic particles forming basecoat / saturation layer), the limitations therein would have been obvious in view of the above noted suggestion from the applied prior art to use a first and second layer of thermoplastic particles in Brinkmann et al's process of making a floor covering.

As to claim 18, note the lower belt of Brinkmann et al.

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As to claim 20, it would have been obvious to apply a third layer of thermoplastic particles in view of Takeuchi et al's teaching to make a sheet having more than three layers.

As to claims 21 and 26-28 (smoothing roller), it would have been obvious to use a smoothing roller in addition to the nip rollers for applying pressure in the belt press in view of (a) Brinkmann et al's teaching to apply heat and pressure in the belt press, (b) Bradshaw et al's teaching to apply heat and pressure in a belt press wherein nip rolls are used to apply pressure in the press and (c) Weaver's suggestion that a pair of rollers (heated roll 19, back roll 20 at low temperature) for forming a floor covering having a glossier surface may be used after applying heat and pressure.

As to claims 29-31, it would have been obvious to use infeed rolls and outfeed rolls for rolls 19, 20 since (a) Weaver shows using a outfeed roll 21 at the rolls 19, 20 whereat the thermoplastic containing layer is directed around the heated roll 19 for smoothing and (b) it is taken as well known / conventional in the molding art to use both infeed and outfeed rolls for directing a layer comprising thermoplastic through a pair of rollers of which at least one is heated.

As to claim 22, note Brinkmann et al's suggestion to cool using cooling zone 24, 24a..

As to claim 23, note Brinkmann et al's suggestion at column 3 lines 60-68 to use a textile sheet in the form for example of a mat of mineral fibers.

13) **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkmann et al (US Patent 4,396,566) in view of Takeuchi et al (US Patent 4,510,201) and Schermutzki (US Patent 4,743,187) and in view of Weaver et al (US 3385722) and / or Bradshaw et al**

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(US 2960727) as applied above and further in view of Meyer (US 4997507) and Garbini et al (US 3883386).

As to claim 8, it would have been obvious to one of ordinary skill in the art to provide the pair of rollers such that they are adjustable nip rollers since use of adjustable rollers for exerting pressure on endless belts is well known / conventional in the endless belt press art as shown by Meyer and Garbini.

14) Claims 13-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkmann et al (US Patent 4,396,566) in view of Takeuchi et al (US Patent 4,510,201) and Schermutzki (US Patent 4,743,187) and in view of Weaver et al (US 3385722) and / or Bradshaw et al (US 2960727) as applied above and further in view of the admitted prior art (specification page 1 line 9 to page 2 line 2).

The description of basecoat, saturation layer is considered to be suggested by the above applied prior art. In any event: As to claims 13-17 and 19 (thermoplastic particles forming basecoat / saturation layer), the limitations therein would have been obvious in view of (a) the above noted suggestion from the applied prior art to use a first and second layer of thermoplastic particles in Brinkmann et al's process of making a floor covering and (b) the admitted prior art's teaching that known floor coverings include a "base coat" and a "saturation layer". As to claim 20, it would have been obvious to apply a third layer of thermoplastic particles in view of the admitted prior art's teaching to make a sheet having more than three layers including the "base coat" and the "saturation layer".

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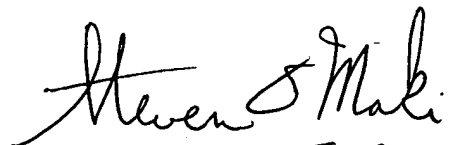
15) Remarks

Applicant's arguments with respect to claims 1-5, 7-8 and 10-31 have been considered but are moot in view of the new ground(s) of rejection.

16) No claim is allowed.

17) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (703) 308-2068. The examiner can normally be reached on Monday to Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball, can be reached on (703) 308-2058. The fax phone number for Art Unit 1733 is (703) 305-7718. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
May 19, 2003


STEVEN D. MAKI 5-19-03
PRIMARY EXAMINER
GROUP 1300-
AU 1733